

Appl. No. 10/518,883  
Response Dated December 20, 2004  
Reply to Office Action Mailed on March 25, 2009

**AMENDMENTS TO THE CLAIMS**

Listing of the claims:

1. (Previously Presented) A downhole pipe repair apparatus, comprising:
  - a corrosion monitoring tool adapted for examining an interior surface of said a pipe to determine the extent of any corrosion;
  - a surface treatment apparatus connected to and in communication with the corrosion monitoring tool, the surface treatment apparatus adapted for cleaning the interior surface of said pipe; and
  - a plating apparatus connected to and in communication with the surface treatment apparatus, the plating apparatus adapted for plating a new surface on the interior surface of said pipe after said surface treatment apparatus cleans said interior surface of said pipe; and
  - wherein the corrosion monitoring tool is adapted for examining said interior surface of said pipe after said plating apparatus plates said new surface on said interior surface of said pipe.
2. (Previously presented) The downhole pipe repair apparatus of claim 1, further comprising:
  - a sealing apparatus disposed between the corrosion monitoring tool and said surface treatment apparatus adapted for sealing off said surface treatment apparatus from said corrosion monitoring tool inside said pipe.
3. (Previously presented) The downhole pipe repair apparatus of claim 2, further comprising:
  - a sealing apparatus disposed between the surface treatment apparatus and the plating apparatus adapted for sealing off said plating apparatus from said surface treatment apparatus inside said pipe.

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4. (Previously Presented) A method for downhole pipe repair, said method comprising:
  - (a) examining an interior surface of a pipe to determine the extent of any corrosion with a corrosion monitoring tool;
  - (b) cleaning the interior surface of said pipe with a surface treatment apparatus connected to and in communication with the corrosion monitoring tool;
  - (c) plating a new surface on the interior of said pipe after the cleaning step with a plating apparatus connected to and in communication with the surface treatment apparatus; and
  - (d) examining, with the corrosion monitoring tool, said interior of said pipe after plating said new surface on said interior of said pipe.
5. (Canceled)
6. (Previously Presented) The method of claim 4, wherein the plating step (c) comprises an electrolytic plating step.
7. (Previously Presented) The method of claim 4, wherein the plating step (c) comprises a chemical plating step.
8. (Previously presented) The method of claim 4, wherein the cleaning step (b) comprises blasting a material against said interior of said pipe, thereby generating removed corroded areas, and collecting removed corroded areas in a container.
9. (Previously presented) The method of claim 4, wherein the examining steps (d) and (a) each further comprise:

pressing one or more fingers against said interior of said pipe, passing said fingers over said interior of said pipe, flexing said fingers when a corroded said is encountered on said interior; and

generating an electrical signal in response to the flexing step representative of said corroded area.

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10. (Previously presented) The method of claim 4, wherein the examining steps (d) and (a) each further comprise:

propagating a compressional or shear wave through one or more corroded areas on said interior of said pipe, receiving the compressional or shear waves from the interior of said pipe, and generating a record of the received compressional or shear waves representative of said corroded areas.